

Signature page

Information

Facility: _____

Facility hazard classification: _____

Facility AD: _____

Facility assurance manager: _____

Facility manager: _____

ES&H team leader: _____

Program: _____

Program AD: _____

Program assurance manager: _____

Project leaders: _____

Signatures

Review completed by:

_____	Date: _____
_____	Date: _____
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Supplement 2.19
Conduct of Operations
for LLNL Facilities
Implementation of DOE Order 5480.19

Contents

Definitions	i-4
Acronyms	i-7
Introduction	i-9
Section 1. Organization and Administration.....	1-1
Section 2. Operating Practices and Safety Procedures	2-1
Section 3. Control Room Operations	3-1
Section 4. Communications.....	4-1
Section 5. On-the-Job Training	5-1
Section 6. Investigation of Abnormal Events	6-1
Section 7. Notifications	7-1
Section 8. Controlling the Status of Equipment and Systems	8-1
Section 9. Lockouts and Tagouts	9-1
Section 10. Independent Verification	10-1
Section 11. Recordkeeping	11-1
Section 12. Shift Turnover	12-1
Section 13. Indirect Monitoring of Operating Parameters.....	13-1
Section 14. Required Reading	14-1
Section 15. Instruction to Employees	15-1
Section 16. Equipment Operating Procedures	16-1
Section 17. Operator-Aid Postings	17-1
Section 18. Equipment and Piping Labeling	18-1

Definitions

Abnormal	An unplanned event that is off-normal or unusual or an emergency, as defined in LLNL's implementing procedure for DOE Order 5000.3A, "Occurrence Reporting."
ALARA	As low as reasonably achievable; a policy of keeping exposures to hazardous agents, such as radiation and carcinogens, as low as reasonably achievable below the regulatory limits, considering programmatic requirements, economic limitations, and the impact on society. (Reference: Chapter 1 of LLNL's <i>Health & Safety Manual</i> .)
Assurance manager	An individual appointed by the associate director to be responsible for ES&H activities within the directorate.
Certification	A written verification of the qualifications of personnel in accordance with specified requirements.
Employee	Any person who is performing a work assignment at LLNL. This category includes LLNL career and indeterminate-time employees, subcontract workers, students, and participating guests. It does not normally include visitors whose principal activities are limited to touring and/or exchanging information.
Facility AD	The associate director (or equivalent) with management responsibility for a particular facility. This AD may or may not have responsibility for programmatic activities within the facility. The facility AD is responsible for identifying a facility manager for each facility (see "facility manager"). (Reference: <i>LLNL Training Program Manual</i> .)
Facility	A building, group of buildings, or limited area of LLNL that is managed by an individual or individuals designated by the facility AD (see also "facility manager" and "facility AD"). Occupant groups are not necessarily under programmatic management of the same directorate. (see also "program AD") (Reference: <i>LLNL Training Program Manual</i> .)
Facility manager	The manager or managers to whom the Facility AD has delegated responsibility for facility operation. Each facility manager is responsible for ensuring that (1) applicable elements of this supplement falling under their area of responsibility are assigned to either the facility manager or project leader(s), and (2) the project leaders are aware of the items assigned to them.
Facility safety procedure (FSP)	A procedure that defines the basic ES&H rules to be followed by all personnel present within a building or area.

Facility-specific sampling	Liquid, solid, or gaseous samples taken within a facility for the purpose of identifying contaminants or concentration levels. The type of samples taken and the type of analyses conducted reflect the specific operations that take place in the facility.
Guidelines	The elements of the conduct of operations that must be addressed. These elements may be applicable or not; those that are applicable must be implemented, or justification for not implementing them must be supplied.
High-hazard facility (HHF)	A facility with the potential for on-site or off-site impact to large numbers of persons or for major impact to the environment. (Reference: Supplement 6.06 of <i>Health & Safety Manual</i> .)
Low-hazard facility (LHF)	A facility that presents minor on-site and negligible off-site impacts to people or the environment. (Reference: Supplement 6.06 of <i>Health & Safety Manual</i> .)
Manager	An individual appointed by an AD to manage a facility, program, or other organization. Examples of managers include facility managers, department heads, division leaders, program managers, and project leaders.
May	Denotes an allowable option or permissible practice that requires no documentation if not in use.
Moderate-hazard facility (MHF)	A facility that presents considerable on-site impacts to people or the environment, but at most, only minor off-site impacts. (Reference: Supplement 6.06 of <i>Health & Safety Manual</i> .)
On-the-job training	Training conducted at the job site, usually one-on-one, while either performing or simulating the actual job or task to be learned.
Operational safety procedure (OSP)	ES&H documents that identify potential hazards associated with a specific operation and requisite controls, and specify such things as responsibilities and training requirements. They are used primarily by experimenters and are generally more limited in scope and more specific than FSPs.
Program AD	The associate director (or equivalent) who is responsible for executing programmatic or other functional activities. Some employees under the program AD's direction may work in facilities managed by a different facility AD. Each program AD is responsible for designating individuals to implement the elements of this supplement as they apply to their experimental setups or programmatic activities. In this supplement, these individuals are referred to as project leaders (see also "project leader").

Project leader	The person designated by the program AD to carry out a particular mission within a program. This person may have the title of project leader, lead experimenter, or equivalent, and is responsible for implementing the elements of this supplement that apply to experimental setups or programmatic activities.
Qualification	The combination of an individual's physical attributes and technical, academic, and practical knowledge and skills developed through training, education, and on-job-performance.
Safety device/system	This term is generally intended to mean all permanently installed safety-related equipment that relates to processes, other major equipment, major personnel hazards, etc., needed for the protection of the public, employees, or environment. It may include systems such as ventilation systems, filtration systems, emergency generators, emergency alarms, required effluent monitoring systems, area monitoring devices (oxygen deficiency monitors, CAMs, RAMs, and criticality alarm systems), or interlock systems. It automatically includes all safety class items (as defined in DOE Order 6430.1A, Section 1300-3.2), but is not intended to include boundary ropes, chains, machine guards, goggles, handrails, temporarily installed equipment, or any other of a host of minor items.
Shall	Denotes a requirement in the DOE Orders or other mandatory standards. No exceptions to strict adherence are possible without formal exemptions approved by DOE.
Should	Denotes a recommendation. If a recommendation is not followed, justification must be provided. "Should" does <i>not</i> denote a discretionary item.
Significant impact to programs	The project leader is responsible for determining what constitutes "significant impact to programs." Items of consideration may include the impact of schedule delays, monetary loss, or degradation of experimental information or results.
Significant impact to health, safety, or the environment	Impact on health, safety, or the environment resulting from the failure or misoperation of a safety device/system needed for the protection of the public, employees, or the environment (see also "safety device/system"). The facility manager and project leaders are responsible for identifying the devices/systems in their areas of responsibility whose failure or misoperation could result in "significant impact to health, safety, or the environment."
Supervisors	Supervisors are responsible for operational and administrative supervision of subordinate personnel. Administrative actions include selection, training, performance evaluation, salary recommendation, promotion, and discipline.

Acronyms

AD	Associate director
ALARA	As low as reasonably achievable
DAP	Discipline action plan
DOE	U.S. Department of Energy
ES&H	Environment, safety, and health
FMP	Facility management plan
FSP	Facility safety procedure
HEPA	High-efficiency particulate air (filter)
HHF	High-hazard facility
LCW	Low-conductivity water
LHF	Low-hazard facility
MHF	Moderate-hazard facility
MSDS	Material safety data sheet
NEPA	National Environmental Policy Act
OJT	On-the-job training
ORR	Operation readiness review
OSP	Operational safety procedure
OSR	Operational safety requirement
PPW	Positively pressurized water
SAD	Safety analysis document
SAR	Safety analysis report
UV	Ultraviolet
VLF	Very low frequency

Conduct of Operations for LLNL Facilities

Implementation of DOE Order 5480.19

Introduction

This supplement must be implemented by facility associate directors (ADs), facility managers, program ADs, and project leaders operating in high-hazard facilities (HHF), moderate-hazard facilities (MHF), and low-hazard facilities (LHF). This supplement provides the guidelines and guidance to implement U.S. Department of Energy (DOE) Order 5480.19, “Conduct of Operations for DOE Facilities,” at LLNL. The implementing guidance is graded based on the hazard classification of each facility and the impact an operation could have on health, safety, or the environment or on the programmatic mission. This supplement applies to all facilities classified by LLNL as high, moderate, or low hazard and is to be implemented at the facility level. It does not apply to “exempt” or “excluded” facilities, such as offices or cafeterias. (Contact your directorate assurance manager if you are unsure of a facility’s classification.)

This supplement also does not apply to institutionally provided services—such as environmental monitoring, personnel dosimetry, bioassay monitoring, hazardous waste analysis, and security—or to plant services and equipment—such as low-conductivity water (LCW), potable water, and the electrical distribution system. (However, a facility housing these services must comply with the supplement if the facility is classified as a HHF, MHF, or LHF.)

Each facility at LLNL has a facility AD. This individual has the overall responsibility for ensuring that applicable elements of this

supplement are addressed and the elements that apply to facility safety are implemented. Normally, this responsibility is delegated to a manager or managers, a building safety coordinator, or an equivalent person appointed by the facility AD to carry out facility safety functions. This supplement refers to these individuals as “facility managers,” whether or not the individual has this title officially. The need for multiple documents within a facility that houses more than one facility manager or project leader should be determined on a case-by-case basis by the facility manager(s).

Programmatic activities in each facility are under the purview of a program AD, who may or may not be the same as the facility AD. Each program AD is responsible for designating individuals to implement the elements of this supplement as they apply to their experimental setups or programmatic activities. Normally, these responsibilities are delegated to a project leader or lead experimenter or to an equivalent person appointed by the program AD. (This supplement refers to these individuals as “project leaders.”)

Any given facility has only one facility AD; however, there may be several programs with different project leaders operating within the facility. Therefore, each facility manager is responsible for ensuring that applicable elements of this supplement are assigned to either the facility manager or to the project leader(s), and, that the project leaders are aware of the items assigned to them. The program AD (or his/her designee) is responsible for ensuring that items assigned to the project leader(s) are implemented in an acceptable fashion.

Each of the 18 sections of this supplement addresses a specific topic related to conducting operations in a facility. Each chapter contains an introduction, the specific guidelines that must be addressed, and implementing guidance for HHFs, MHFs, and LHF. In many cases, these guidelines are already addressed in existing documents, such as facility safety procedures (FSPs), operational safety procedures (OSPs), facility management plans (FMPs), and LLNL's *Health & Safety Manual*, and compliance has already been achieved. Managers should take credit for these items whenever appropriate and not rework these issues for the sake of this document. For your convenience, cross references are supplied to documents that have the same or similar requirements. The guidelines contained in this supplement are not intended to conflict with any other DOE or LLNL document; however, as revisions to this or other referenced documents occur, conflicts may arise. In this case, contact your directorate assurance manager for guidance.

This supplement should be used as a workbook to document the compliance status of each facility. After the supplement is initially filled out, it should be updated as compliance is achieved and as programs, personnel, and facility equipment change. The supplement should be available for review by auditors.

Instructions for Use

1. Complete the signature page (p. i-2).
2. Determine which hazard classification has been assigned to the facility; contact your directorate assurance manager or the environmental, safety, and health (ES&H) team leader for your area if you are unsure of the facility's classification. Implementing guidance is provided for HHFs, MHFs, and LHFs; facilities that are "exempt" or "excluded" are not required to implement this supplement (but they are required to comply with the ES&H guidelines specified in *Health & Safety Manual*).
3. The implementation guidelines in 11 of the 18 sections of this supplement are related to operations, equipment, systems, or processes that could produce "significant impact to health, safety, or the environment" or "significant impact to programs" (see Definitions). Therefore, initial identification of operations that you are responsible for and that fall into these categories will be helpful to you for quickly assessing the applicability of many of the guidelines.
4. Read Part I of each section. These brief statements provide a summary of each conduct of operations topic and are intended to help you determine whether the elements of the section are applicable.
5. Read each guideline in Part II of each section and, based on the corresponding guidance provided in Part III, determine if the item is applicable.
 - a. If the item is applicable, write "yes" in the column labeled "Applicable." If the item is considered applicable to all facilities, a "yes" has already been entered.
 - b. If the item is not applicable, write "no" in the Applicable column and note why it is not applicable in the column labeled "Comment/Reference for Verification of Compliance." For example, (1) a criticality safety program is not applicable in a facility that handles only tritium because tritium cannot under any circumstances produce a criticality accident; (2) the facility may not contain operations that could result in significant impact to health, safety, or the environment or significant impact to programs; or (3) there may be no implementing requirements specified for a particular hazard classification (such as a LHF.)

6. For each applicable item,
 - a. Indicate whether responsibility for compliance lies with the facility manager, project leader, or both by circling the appropriate initials in the column labeled “Responsible Person.”
 - b. Write “yes” in the column labeled “Compliance” if compliance has already been achieved. For example, if the guideline is to have an organizational chart and one already exists, write “yes” in the Compliance column and use the Comment/Reference for Verification of Compliance column to indicate where the chart can be found (e.g., on page 2 of the FSP).
 - c. Write “no” in the Compliance column if the facility is not in compliance or is only in partial compliance.
7. If you have any questions as to whether an item is applicable, or if you are in compliance, contact your directorate assurance officers for information and/or clarification.

Institutionally Provided Services

Similar to the approach used by DOE Order 5480.19, this supplement does not generally apply to services institutionally provided to a facility (such as utilities, security, etc.). There are, however, two items included in DOE Order 5480.19 that are provided institutionally at LLNL. These two items are (1) the requirement for independent internal appraisals and (2) the requirement to maintain current or “as built” drawings for a facility. These items have not been included in the main body of the supplement because they are not generally the responsibility of facility personnel.

The Plant Engineering Department provides “as built” drawing services for facilities at LLNL. The responsibility for performing independent appraisals is the responsibility of the newly created Assurance Review Office and the Nuclear Facility Safety Committee, which report to the Deputy Laboratory Director. These items are identified here so that facility personnel will be aware of the requirements, even though they are institutional responsibilities.

